

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

- 1 1. (currently amended): A device for the emulation of designs for integrated
2 circuits, comprising:
3 a receiving device configured for receiving multiple programmable logic circuits
4 having terminal contacts; and
5 an electrical connection structure, which has bus lines, each of which includes
6 multiple channels, wherein
7 each programmable logic circuit of the multiple programmable logic circuits
8 when connected with the receiving device is connected to at least one bus line of the bus lines,
9 and
10 wherein the electrical connection structure is configured so that the multiple
11 programmable logic circuits are independently interconnectable with one another,
12 wherein at least a part of the terminal contacts of any programmable logic circuit
13 is independently assignable, and
14 wherein at least a part of the bus lines connected to the programmable logic
15 circuits are alternately electrically connectable to one another using a switch wherein at least one
16 channel of a bus line is electrically connectable to a channel of at least one other bus line using
17 the switch.
- 1 2. (previously presented): The device according to Claim 1,
2 wherein the multiple channels of a bus line are alternately electrically connectable
3 to multiple channels of another bus line, each channel of the one bus line being electrically
4 connectable to the channel of the other bus line, individual channels of the multiple channels
5 being connectable independently of one another.

1 3. (previously presented): The device according to Claim 1,
2 comprising connection bus lines between at least a part of the programmable logic
3 circuits for direct connection of at least a part of the programmable logic circuits.

1 4. (previously presented): The device according to Claim 1, being one of
2 multiple receiving devices and wherein the multiple receiving devices are connectable to one
3 another via connection devices, the connection devices having switchable bus lines.

1 5. (previously presented): The device according to Claim 4,
2 further comprising main connection devices, each of which connects two
3 receiving devices to one another, the main connection devices having main connection device
4 bus lines, which connect the bus lines of the two receiving devices assigned to one another to one
5 another and the main connection device bus lines being alternately electrically connectable to
6 one another in such a way that at least one channel of a main connection device bus line is
7 electrically connectable to the channel of at least one other main connection device bus line.

1 6. (previously presented): The device according to Claim 5,
2 further comprising group connection devices, each of which connects two
3 receiving device pairs, including two receiving devices, connected to one another using the main
4 connection device, to one another and a group connection device having group connection device
5 bus lines, which are connected to the bus lines of the receiving device pair, and the group
6 connection device bus lines each being switchable in such a way that each channel of each group
7 connection device bus line is assigned one of a plurality of switches and wherein each switch of
8 the plurality of the switches is configured to be switched on and off independently of the other
9 switches of the plurality of switches.

1 7. (previously presented): The device according to Claim 6,
2 wherein the receiving devices, the main connection devices, and the group
3 connection devices have circuit boards, which are provided on their upper side and on their lower

4 side with plug connector arrangements which include multiple plug connectors situated in the
5 same position on the circuit boards and the outward-leading bus lines of the circuit boards are
6 electrically connected to both upper and corresponding lower plug connectors of the plug
7 connector arrangement in the same way.

1 8. (currently amended): The device according to Claim 7,
2 wherein the circuit boards are positioned one over another and are mechanically
3 and electrically connected to one another using the plug connector arrangements,
4 and wherein two circuit boards at a time of the receiving devices are connected
5 into a receiving device pair using a circuit board of a main connection device positioned between
6 the two circuit boards of the receiving devices, to form a receiving-device-main-connection-
7 device circuit board stack,
8 and wherein the receiving device pair is one of several receiving device pairs, and
9 wherein the receiving device pairs are connected to one another using the circuit boards of the
10 group connection devices.

1 9. (previously presented): The device according to Claim 8,
2 wherein a spacing is provided between some of the plug connectors of the plug
3 connector arrangements, the spacing being dimensioned to allow cool air to flow through the
4 circuit board stack between the plug connectors.

10. (canceled)

1 11. (previously presented): The device of Claim 1, wherein the multiple
2 programmable logic circuits comprise FPGAs.